Roadblocks on the Information Highway: The IT Revolution in Japanese Education. Jane M. Bachnik, ed. Studies of Modern Japan. Edward R. Beauchamp, series ed. Lanham, MD: Lexington Books, 2003. 364 pp. ISBN 0739106287

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This book is a welcome addition to the literature on Japanese educational reform and the complex linkages between policy and practice. The contributions take seriously the important idea that understanding the role of technology in schools involves close attention to relevant social, political, and economic contexts. As a result, this work is as much about Japanese culture and some of its fundamental contradictions as it is about information technology (IT) per se.

The overall argument of the book is that Japan has been a global leader in terms of promoting IT but its record of implementing IT is dismal. Why this disconnect? According to Bachnik, "the IT revolution contradicts--and thus challenges--the very social structure within which it is supposed to be implemented" (p. 2). In this view, the education system is at the center of a collision between the government's vision of a state-orchestrated technology revolution and "the changing social milieu being generated by the actual information revolution and increasing global interdependence" (p. 5). The developmental state is fundamentally at odds with the information society it helped bring to life.

The individual articles are grouped into three sections, each of which speaks to a particular set of challenges in implementing IT in Japan. In each of these sections, a series of ethnographic case studies, written mostly by foreign and Japanese university faculty members who have personally encountered "IT frustration" in Japan, is followed by a more conceptual and integrative piece.

The first section, for example, examines the tension between the need for specialization to make IT work effectively and the still-dominant orientation toward hiring "generalists" who are trained by the firm or organization. Yoshida Aya and Jane Bachnik report on a comprehensive national survey of multimedia usage in higher education, which is then followed by reports from an IT service provider and faculty seeking IT support. Faculty, it turns out, are supposed to be givers, rather than receivers, of IT support, leading Bachnik to conclude that the dominant orientation toward technology by university bureaucrats can be summed up in the slogan, "Do IT Yourself."

The second section focuses on the clash between the flexibility and individual orientation of the Internet and the bureaucratic and standardized approach in university administration. Case studies of top-down responses to faculty who try to increase IT usage at their universities provide compelling data for Brian McVeigh's summary piece on how bureaucratic protocol subverts educational innovation.

In the final section, the lack of interest in student-centered pedagogies in Japan is taken as evidence for the need for an educational shift "from training diligent workers who dedicate themselves to nationalist goals to developing people who possess originality, individuality, creativity, initiative, and leadership abilities" (p. 10). Case studies in this section show that blind faith in the transformative power of technology is misplaced because off-line learning is crucial to on-line learning.

As with any good work, there are some limitations. In spite of its title, the case studies deal almost exclusively with higher education in Japan, although many different types of universities are represented. Given the more student-centered approaches that have been well documented in Japanese elementary schools and the Ministry of Education's campaign to "wire" these schools, one cannot help but wonder how the IT revolution is playing out in K–12 education. The book is largely silent on this question.

In addition, although the volume does try to connect technology to its social context in Japan, only a few chapters draw explicit comparisons with the United States, and none acknowledge the very good literature on technology implementation in American schools. Indeed, the gendered and social class dimensions of IT implementation are scarcely mentioned at all in this book. This may be understandable given the book's focus on policy and implementation at the university level, but readers should know that they will not find here a comprehensive sociological analysis of technology use in Japanese schools.

Finally, the book's overall argument was a bit too one-dimensional for my tastes. A monolithic set of university administrators and Ministry of Education bureaucrats take it on the chin in this account, and Japanese culture is seen largely as a barrier and an impediment to "progress." The book states that Japan is at a crossroads and implies that failure to challenge the "tyranny of tradition" (p. 291)--because fundamental cultural change is a necessary precondition for successful IT implementation--will have far-reaching consequences. Of what form? That Japan will be consigned to its role as the second largest economy in the world? Are there no advantages to state-orchestrated technology implementation? Although the degree of inertia in the system is obviously frustrating to individuals who are trying to innovate, the authors might also have discussed the limitations of a more neoliberal model whereby technology is

open to nearly unlimited control by private and individual interests. More discussion of hybrid models and suggestions for new kinds of state roles would have provided a fitting capstone to the book.

In spite of these concerns, this is a book highly recommended for Japan specialists and educators as well as for sociologists and anthropologists of education. It joins a growing list of studies that provide insightful analyses of the "loosely coupled" nature of social policy implementation in Japan.